

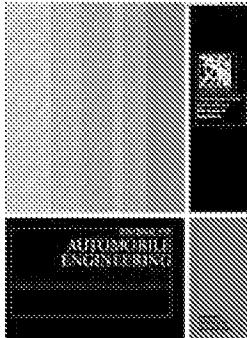

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A semi-automated parallel parking system for pa

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Abstract

Car parking has been, and still is, a growing problem, with increasing vehicle sizes in the urban segment as well as sport-utility vehicles. This is especially true when bearing in mind the limited parking spaces in parking lots and cities. While damage during parking generally does not result in any injury to the passengers, it is costly and annoying. Park assist systems are by now common on the market, since passive systems which provide longitudinal guidance using ultrasonic sensors have been available on the market for a number of years.

The system presented is a semi-automated approach to parallel parking problems, as they frequently occur in European and Asian cities. The challenge during the development of the system was to have as few components as possible added to a standard vehicle, seeking to make use of many of the already built-in functionalities. The result is a system that leaves the longitudinal control of the vehicle to the driver but automates the steering process, and even stops the vehicle when the final parking position is reached.

Keywords

electric steering gear, ultrasonic distance sensors, functional architecture

References

References secured to subscribers.

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